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EXAMINER	
BENGZON, GREG C	

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/038,142	TABATABAI ET AL.	
	Examiner	Art Unit	
	Greg Bengzon	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-90* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-90* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This application has been examined. Claims 1-90 are pending.

Reopening Prosecution

In view of the Appeal Brief filed on 12/07/2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

Claims 1-5, 7-35, 37-65,67-90 rejected under 35 U.S.C. 103(a) as being unpatentable over Basso et al. (US Patent 6751623), hereinafter referred to as Basso, in view of Kim et al. (Extensible MPEG-4 Textual Format), hereinafter referred to as Kim.

With respect to Claim 1, Basso discloses a method comprising: forming an access unit comprising a fragment update, (Figures 1-2, Column 1 Lines 55-65, Column 3 Lines 30-40) the fragment update forming an encoded data stream from the access unit.(Column 25 Lines 50-60,Column 27 Lines 10-65, Column 28 Lines 1-15)

However while Basso disclosed updating fragments [segments], Basso did not disclose (re. Claims 1,2,22) the fragment update comprising a fragment update command.

Kim disclosed (re. Claims 1,2,22) the fragment update comprising a fragment update command [BIFS update commands – 'replace'], as embodied in a textual

representation of an MPEG4 scene description encoded in XMT format. (Kim- Column 1 Paragraph 1, Column 2 Paragraph 2, Column 8 Paragraph 1, Figure 5)

Basso and Kim are analogous art because they present concepts and practices regarding the coding and decoding of MPEG4 scene descriptions using inter-media formatting protocols. Both Basso and Kim disclose that said formatting protocols are applicable for MPEG-7 (Basso- Column 3 Lines 40, Kim- Column 3 Paragraph 1). At the time of the invention it would have been obvious to combine the teachings of Kim regarding including update commands in the textual representation of MPEG4 stream into the method and system of Basso. The motivation for doing so would have been to allow for organization of MPEG-4 metadata and updating scene description segments , as desired by Basso (Basso- Column 27 Lines 25-30, Column 25 Lines 40), while facilitating interoperability and rapid content re-purposing or re-authoring (Kim – Column 4 Paragraph 1).

With respect to Claim 3, Basso discloses the method of claim 1 wherein the fragment update further comprises a value. (Column 8 Lines 30-65)

With respect to Claim 4, Basso discloses the method of claim 1 wherein the fragment update further comprises a fragment reference wherein the fragment reference is a pointer to a fragment to be used by the fragment update command. (Column 8 Lines 30-65)

With respect to Claim 5, Basso discloses The method of claim 4 wherein the fragment reference is a uniform resource identifier (URI). (Column 8 Lines 45-50)

With respect to Claim 7, Basso discloses the method of claim 1 wherein the fragment update further comprises a payload. (Column 27 Lines 25-30)

With respect to Claim 8, Basso discloses the method of claim 4 wherein the fragment is in a first node. (Figure 1-2, Column 10 Lines 45-65)

With respect to Claim 9, Basso discloses the method of claim 8 wherein the fragment reference is in a second node and the first node and the second node are the same node. (Figure 1-2, Column 10 Lines 45-65)

With respect to Claim 10, Basso discloses the method of claim 9 wherein the first node and the second node are in a Moving Picture Experts Group (MPEG) description. (Figure 1-2, Column 10 Lines 45-65)

With respect to Claim 11, Basso discloses the method of claim 8 wherein the fragment reference is in a second node and the first node and the second node are different nodes. (Figure 1-2, Column 10 Lines 45-65)

With respect to Claim 12, Basso discloses the method of claim 11 wherein the first node and the second node are in a Moving Picture Experts Group (MPEG) description. (Figure 1-2, Column 10 Lines 45-65)

With respect to Claim 13, Basso discloses the method of claim 1 further comprising: determining if a multimedia description corresponding to the access unit has changed; identifying a changed portion of the multimedia description and a corresponding access unit; and forming the fragment update to correspond to the changed portion of the multimedia description. (Column 25 Lines 50-65)

With respect to Claim 14, Basso discloses the method of claim 1 further comprising: associating the access unit with a partial description. (Column 25 Lines 35-40)

With respect to Claim 15, Basso discloses The method of claim 14 wherein the partial description comprises an instance of a descriptor. (Column 25 Lines 35-40)

With respect to Claim 16, Basso discloses the method of claim 1 further comprising: associating the access unit with a reset point that contains a fragment that forms a complete description. (Column 27 Lines 10-65, Column 28 Lines 1-10)

With respect to Claim 17, Basso discloses the method of claim 4 wherein the, fragment is stored on a different system than a system performing the method of claim 1. (Column 7 Lines 25-40)

With respect to Claim 18, Basso discloses the method of claim 1 wherein the access unit corresponds to a description, and further comprising: transmitting the encoded data stream while the description is static. (Column 27 Lines 25-40)

With respect to Claim 19, Basso discloses the method of claim I wherein the access unit corresponds to a description, and further comprising: transmitting the encoded data stream while the description is dynamic. (Column 27 Lines 25-40)

With respect to Claim 20, Basso discloses the method of claim 1 further comprising: transmitting a data for decoding to a decoder. (Column 7 Lines 15-20)

With respect to Claim 21, Basso discloses the method of claim 20 wherein the data include schemas defining a description data to be transmitted. (Column 27 Lines 10-65)

With respect to Claim 22, Basso discloses a method comprising: receiving an access unit comprising a fragment update, (Figures 1-2, Column 1 Lines 55-65, Column 3 Lines 30-40) wherein the fragment update comprises a first fragment

reference, and wherein the first fragment reference is a pointer to a first referenced fragment in a first node. (Column 25 Lines 50-60, Column 27 Lines 10-65, Column 28 L1-15)

With respect to Claim 23, Basso discloses the method of claim 22 wherein the first referenced fragment is a partial description. (Column 25 Lines 35-40)

With respect to Claim 24, Basso discloses the method of claim 22 further comprising: comparing the first referenced fragment to a stored fragment; and obtaining the stored fragment if the stored fragment is the first referenced fragment. (Figure 6 Column 17 Lines 5-30)

With respect to Claim 25, Basso discloses the method of claim 22 wherein the first fragment reference is in hyper-text transfer protocol (HTTP). (Column 7 Lines 1-40)

With respect to Claim 26, Basso discloses the method of claim 22 wherein the access unit is a part of a Moving Picture Expert Group (MPEG) description. (Figure 1-2, Column 10 Lines 45-65)

With respect to Claim 27, Basso discloses the method of claim 22 further comprising: identifying a second node which the command affects; and identifying a second fragment reference which the first fragment reference points to, wherein the second fragment reference points to the first referenced fragment. (Figure 1-2, Column 10 Lines 45-65)

With respect to Claim 28, Basso discloses the method of claim 22 wherein the fragment update further comprises a payload. (Column 27 Lines 25-30)

With respect to Claim 29, Basso discloses The method of claim 27, wherein the second fragment reference pointsto a second referenced fragment within the first node, (Figure 1-2, Column 10 Lines 45-65) further comprising: replacing the first fragment reference with a third fragment reference pointing to the second referenced fragment. (Column 25 Lines 50-65)

With respect to Claim 30, Basso discloses the method of claim 27, wherein the second fragment reference pointsto a second referenced fragment within the first node, (Figure 1-2, Column 10 Lines 45-65) further comprising: replacing the first fragment

reference with a third fragment reference pointing to a third referenced fragment within the second node. (Column 25 Lines 50-65)

With respect to Claims 31-35, 37-51, the Applicant describes a computer readable medium containing computer executable instructions to perform the method described in Claims 1-21, said instructions having the same limitations as described in Claims 1-21. Claims 31-35, 37-51 are rejected on the same basis as Claims 1-21, as applied above.

With respect to Claims 61-65, 67-81, the Applicant describes a system having the same limitations as described in Claims 1-21. Claims 61-65, 67-81 are rejected on the same basis as Claims 1-21, as applied above.

With respect to Claims 52-60, the Applicant describes a computer readable medium containing computer executable instructions to perform the method described in Claims 22-30, said instructions having the same limitations as described in Claims 22-30. Claims 52-60 are rejected on the same basis as Claims 22-30, as applied above.

With respect to Claims 82-90, the Applicant describes a computer readable medium containing computer executable instructions to perform the method described in Claims 22-30, said instructions having the same limitations as described in Claims 22-30. Claims 82-90 are rejected on the same basis as Claims 22-30, as applied above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 36, and 66 rejected under 35 U.S.C. 103(a) as being unpatentable over Basso et al. (US Patent 6751623), hereinafter referred to as Basso , in view of Kim et al. (Extensible MPEG-4 Textual Format), hereinafter referred to as Kim, as applied to Claims 1-5, 7-35, 37-65,67-90 above, and further in view of Srivastava et al. (US Patent 6549922), hereinafter referred to as Srivastava , further in view of the W3C Organization Press Release titled 'W3C Issues XSL Transformations (XSLT) and XML Path Language (XPath) as Recommendations', and the XPath Specifications document referenced therein, dated November 16 1999.

With respect to Claims 6, 36, and 66, the combination of Basso and Kim substantially discloses the limitations as described in the said claims.

However the combination of Basso and Kim does not disclose a fragment reference that is in Xpath (extensible markup language path language).

XPath is a language for addressing parts of an XML document, designed to be used by both XSLT and Xpointer. XPath gets its name from its use of a path notation as in URLs for navigating through the hierarchical structure of an XML document. In addition to its use for addressing, XPath is also designed so that it has a natural subset that can be used for matching (testing whether or not a node matches a pattern). Using XPath functions can reduce the amount of programming required when a system receives the XML data.

Srivastava discloses of a method for representing multimedia content using a standard data representation format using XML. Srivastava extracts data from the multimedia content and forms metadata for said content. The said metadata may reference URL of Internet data which contains externally located metadata which describes the media file. Srivastava also provides a graphical user interface for editing the media file and the metadata. (Column 3 Lines 1-60)

Basso, Kim and Srivastava are analogous art because they present concepts and practices regarding data representation for multimedia content. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the teachings of Srivastava into the combination of Basso and Kim, such that the metadata for the media content in the fragment references of Basso and Kim are represented using the XML format. The motivation for said combination would have been, as Srivastava suggests, in order to take advantage of the XML standard for

facilitating automated media management solutions. Currently, Srivastava writes, there is no unified way of capturing and using MPEG-7 metadata in application programs. Instead, special-purpose routines must be written by the application programmer to handle each of the wide variety of metadata storage techniques used by different proprietary media formats. (Column 1 Lines 30-35) By using a well-defined XML structure, a unified representation for the metadata is achieved. (Column 7 Lines 60)

However Srivastava does not disclose using XPath with XML documents, such that the references contained in the XML document can be located, filtered, matched, or transformed using XPath functions.

The W3C Press Release announces the creation and availability of the XPath language specifications. Together with XSLT, XPath makes it possible for XML documents to be reformatted according to the parameters of the XSL style sheets, and build presentation flexibility into the XML architecture.

At the time of the invention it would have been obvious to use XPath in the XML documents as taught by the combination of Srivastava, Basso and Kim , such that the parts of the XML documents are easily matched, filtered, or transformed according to a specified rule or condition. The motivation for combining XPath into the combined teachings of Srivastava,Basso, and Kim would have been, as the W3C press release suggests, to facilitate delivery of rich, structured data content to a wider range of devices.

Response to Arguments

Applicant's arguments filed 12/07/2005 have been fully considered but are moot in view of the new ground(s) of rejection.

The Applicant presents the following argument(s) [*in italics*]:

'*Basso does not teach or suggest that his access units can be used to update the metadata.*'

The Examiner respectfully disagrees with the Applicant.

Basso disclosed several items that may be considered meta-data, such as object descriptors and scene description data, that are equivalent to the Applicant 'multimedia description'. In Column 25 Lines 35-50 Basso states that '*The segment data could include access units that belong to a single object or to multiple objects, object descriptors only, object content information (OCI) data only, or scene description data only...Another aspect of this segment-based approach is the separation between the access tables and the actual media data itself.*' Basso thus disclosed elements that are completely separate from the actual media itself, said elements being found inside access units.

In MPEG4 access units are discrete portions of data that have timestamps attached, such that video frames may be synchronized for presentation. Access units are part of the mechanism used for updating data streams, as they represent the portions that are updated.

Basso is referring to manipulating multimedia data other than the actual media data itself (Column 27 Lines 25-30 – 'modifying only metadata'). In Column 4 Lines 55-65, Basso states that '...scene description information is provided separately, defining the spatio-temporal location of these objects in the final scene to be presented to the user....In contrast to VRML, scene descriptions can be dynamically updated.' Thus, Basso disclosed updating multimedia [scene] descriptions, not the actual media data itself.

Since Basso disclosed that an access unit can have a segment that contains scene description data *only*, and the MPEG4 update mechanism modifies the contents of the access unit, and Basso further disclosed '*modifying only metadata*', Basso disclosed that access units may be used to update multi-media descriptions, not just the actual media data itself.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Bengzon whose telephone number is (571) 272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gcb

WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER